

PS-SEAL® with GYLON® Blue Style 3504

Case Study: Snack Production Process



Industry

Food & Beverage – Snack Production

Customer

A major global confectionery group producing leading consumer branded products, with a focus on quality and customer satisfaction and facilities all over the globe.

Background

This customer's facility in Europe processes chocolate and cream filled snacks. The maintenance team struggled to keep up and running the screw pumps for raw materials transportation (chocolate and cream). They used traditional packings to seal the shafts, but they had to be replaced them on weekly basis.

Challenges faced

Chocolate and cream are extremely critical in rotating shafts due to their tendency to crystallize on the pump shafts. The combination with the abrasion of sugar and chocolate particles causes fast and heavy wear of the packings, reducing process line production time due to frequent seals replacements. Plus there is always the risk of contamination of the batch, due to the high wear.

Operating Conditions

1. Produced Media: Chocolate and Cream (no CIP/SIP)
2. Temperature: 40 – 55°C
3. Pressure: up to 6 bar

Solution and Benefits

Through in-depth discussion and collaboration with the customer's engineering team, it was determined that the best solution was to replace the packings by a state of the art shaft seal solution. They choose the Garlock PS-SEAL® with GYLON® Blue Style 3504 as lip material. This would support the required level of compliance to industry standards, and the modified PTFE structure would provide the elasticity and low friction properties to sustain this conditions.

As a result, the PS-SEAL® has significantly decreased the maintenance cycles, from every 5 days to every 4 months. After this outstanding improvement, the PS-SEAL® solution was implemented in all pumps and has been specified as the standard solution.

For more information, please visit:

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